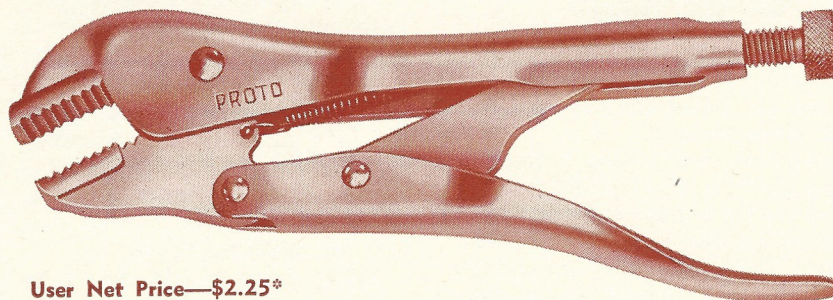


What's New in PROTO

Versatile Lever-Wrench Plier Is Five Tools in One



User Net Price—\$2.25*

Capable of handling thousands of difficult jobs, the new Lever-Wrench Plier, No. 291, will have great appeal to all of your customers. Home owners, in particular, will be big users of this tool be-

cause of its versatility. Actually, it is five tools in one—a powerful hand vise, a clamp, an adjustable wrench, a pipe wrench, and a plier.

One outstanding feature is its dual range capacity. Though only

8" long, it has the capacity of larger competitive models. This means a lighter, more compact tool for the small jobs, but one that has a capacity of up to 1½".

To operate the Lever-Wrench, place the object to be held between the jaws and turn the screw at the end of one handle until the jaws grip the work snugly. Then, squeeze the handles together. This forces the central fulcrum beyond the "in line" position and locks the jaws in the holding position with pressure up to one ton.

With the handles in the open position, the tool is used as a plier.

Like other PROTO tools, it is a professional quality tool. Parts are made of high-grade alloy steel, properly designed to handle heavy-duty work and give years of trouble-free service.

These three great selling features—versatility, dual range capacity, and professional quality—are sure to make the Lever-Wrench Plier a big seller with your customers. Be sure and order your supply today.

Torque-Limiting Screwdriver Speeds Precision Assembly Work



With the addition of a new precision torquing instrument—the No. 6080 Inch-Ounce Torque-Limiting Screwdriver, you can tap even greater markets in industry.

Especially suited for high-speed production work where low-capacity torque ratings are used, the No. 6080 is a preset torque screwdriver with a range of 4 to 80 inch-ounces. Electronics, communications, aircraft, and many other industries will be big users of this new tool.

The screwdriver operates on the same automatic torque limiting principle as does the PROTO Torquer. When the set torque has been reached there is an automatic ratcheting action that limits the applied torque. The screwdriver will continue ratcheting once the desired torque has been reached, making it impossible to over-torque.

Changes in torque settings are made by means of an adjusting screw in the handle of the screwdriver with the 1/8" hexagon key

provided with each tool. Turning the screw clockwise increases the torque, and counter-clockwise decreases the torque setting. A screw-cap is provided to lock the adjustment.

Proper torque setting may be determined by trial on the screw or nut to be tightened, or by use of a PROTO-Chapman Inch-Ounce Calibrator (described in another article). Where specified torque values must be maintained, the latter method is necessary. After the proper setting has been made, no further adjustment is needed.

The screwdriver comes equipped with a 9/32" slotted screwdriver bit, No. 6101. The bit is 2" overall in length. It has a 1/4" hexagon male plug that fits into the screwdriver holder, and is held in place by an L-Nickel permanent magnet.

A second bit is available to fit the screwdriver—the No. 6102. It has a #1 Phillips bit and is 2" long.

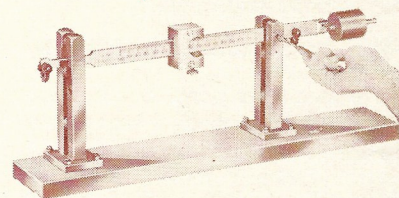
By use of a standard PROTO No. 7102 power socket extension,

the screwdriver can be adapted for use with standard 1/4" drive PROTO sockets.

Catalog Information

No.	User Net Price*	Description
6080	\$22.45	Torque Screwdriver, 4-80 Inch-Ounce
6101	.60	Slotted 9/32" Wide Bit
6102	.60	Phillips No. 1 Bit

New Calibrator Designed for Torque Screwdrivers



No. 6002 (Without Case)
No. 6003 (With Case)

With a capacity of 160 inch-ounces, the PROTO-Chapman Inch-Ounce Calibrator, was especially designed for calibrating the Torque Screwdriver mentioned above.

To operate the calibrator, slide the weight on the beam to the torque desired. Turn the adapter with the screwdriver as if driving a screw. When the screwdriver is adjusted correctly, the beam will come to a balance.

Prices and delivery furnished upon request.

*Prices subject to change without notice.

Screwdrivers with Patented "Tension-Tip" Holder Simplify Close Work



No. 9854—User Net Price—\$1.25*



No. 9852—User Net Price—\$1.10*



No. 9850—User Net Price—\$0.95*

Where close quarters call for a quality screwdriver with an effective screw-holding device, urge your customers to buy PROTO's new "Tension-Tip" screw-holding drivers with plastic handles. All three sizes available should be popular in ignition and instrument panel work, and in the important electronics field.

The screw-holding device is so simple it can be operated with the thumb without removing the hand from the screwdriver handle.

Pressing on the spring brings the end of the holder in line with

the bit of the screwdriver. After the screw is placed on the bit, release the spring and the tip holds the screw securely.

Another outstanding feature is that the "Tension-Tip" holders are easily retracted to clear the screwdriver bit for general work. The many features of the screwdriver itself are illustrated in another article in this issue.

Catalog Information

No.	Shank Size	Blade Length	Bit Width	Overall Length
9850	1/8" Sq.	4"	1/8"	6 3/4"
9852	1/8" Sq.	6"	1/8"	8 3/4"
9854	3/16" Sq.	7"	3/16"	10 3/8"

HELPFUL INFORMATION FOR SELLERS OF PROTO TOOLS

How to Add Life to Socket Handles

PROTO handles for socket wrenches will give extra long service if used properly. They are subject to much abuse, however, and you can help your customers by cautioning them against some of the common malpractices.



For example, hinge handles are frequently treated like a heavy-duty slugging wrench, as evidenced by tell-tale hammer marks. Pipes or other "cheaters" are often slipped over the handle to give added leverage in breaking loose stubborn nuts. Such abuse could break the shank or spread the yoke.

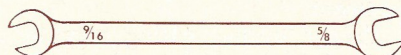


Sliding bar, pin and ell handles are likewise victims of the hammer or "cheater" treatment. A good rule is use hands only on *hand* tools.

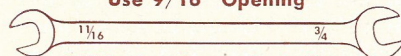
Speed handle knobs sometimes develop extra play after long use. They can be repaired by the Factory.

All socket handles have a spring-actuated ball for holding the sockets. Should the ball become lost, it can be replaced in a jiffy. If the ball jams from dirt and grease, it can be freed by dipping in a solvent and tapping with a hammer.

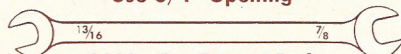
Tappet Wrenches To Use on Continental Engines



3430—For Tappet Adjusting Screw
Use 9/16" Opening



3435—For Tappet Lock Nut
Use 3/4" Opening



3440—For Tappet Body
Use 7/8" Opening

The three tappet wrenches illustrated (all 10" long) are used on Continental engines in Kaiser-Fraser cars, Federal trucks, Mack trucks, power units and tractors.

These wrenches are designed so that they will fit in the close clearances between the tappet, tappet adjusting screw and lock nut. All three can be held and adjusted simultaneously. The specially shaped thin heads nest closely together to make this difficult job easy.

Specify 1419H Handle for No. 1419 Trim Hammer



User Net Price—\$0.71*

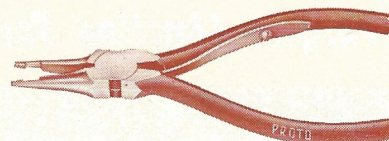
When you order spare handles in the future for the No. 1419 magnetic trim hammer, ask for re-instated handle No. 1419H.

Having an 1 1/32" x 1 1/16" section at the head end, this handle fits perfectly into the oval-shaped eye of the 1419 hammer.

The 1419H handle is 2" shorter than the one formerly supplied for the 1419 magnetic trim hammer. Its 11 1/8" length allows the hammer head to follow the arc of a natural swing and provides a better balance for upholstery work.

Made from tough, straight grained second growth hickory, the octagon shaped handle fits the hand for a sure, comfortable grip.

New Needle Nose Plier Has Cutter Near Tips



User Net Price—\$3.85*

Another in PROTO's expanding line of tools specifically designed for electronics and other types of electrical work is the new 6" Needle Nose Plier No. 224—featuring cutters near the end of the jaws. Located only 3/16" from the tips, the induction hardened cutters will reach deep into assemblies and clip wires—not possible with conventional types.

The long slim jaws are designed for work in close quarters. Diamond serrations on the jaws assure a good gripping surface for tight winds around terminals. The slimness of the nose makes it ideal for forming loops for connections.

A light, but rugged tool, the 224 is designed to fit the hand properly for more comfortable work. Joint construction assures smooth action and no excessive looseness, as found in many other designs on the market.

This plier is a necessary tool for all types of electronics work and is also used extensively in communications for panel and switch-board wiring.

*Prices subject to change without notice.